

Hunger in Legal Immigrants in California, Texas, and Illinois

ABSTRACT

Jennifer Kasper, MD, MPH, Sundeep K. Gupta, MD, MPH, Phuong Tran, MD, John T. Cook, PhD, and Alan F. Meyers, MD, MPH

Objectives. This study determined the prevalence of food insecurity and hunger in low-income legal immigrants.

Methods. We conducted a cross-sectional survey of Latino and Asian legal immigrants attending urban clinics and community centers in California, Texas, and Illinois with a food security questionnaire.

Results. Among 630 respondents, 40% of the households were food insecure without hunger and 41% were food insecure with hunger. Independent predictors of hunger were income below federal poverty level (odds ratio [OR]=2.72, 95% confidence interval [CI]=1.72, 4.30), receipt of food stamps (OR=2.53, 95% CI=1.57, 4.09), Latino ethnicity (OR=2.39, 95% CI=1.49, 3.82), and poor English (OR=1.76, 95% CI=1.10, 2.82).

Conclusions. The prevalence of hunger among low-income legal immigrants is unacceptably high. Access to food assistance programs is important for the health and well-being of this population. (*Am J Public Health.* 2000;90:1629–1633)

Despite the apparent strength of the US economy, several recent studies have documented relatively high rates of poverty, food insecurity, and hunger in some segments of the American population. According to Census Bureau data, 36.6 million Americans lived in poverty in 1997, and 14.6 million lived in households with incomes below half of the federal poverty level.¹ The 1995 US Department of Agriculture's (USDA) Food Security Measurement Study reported that among families with incomes below 50% of the federal poverty level, 41% were food insecure, including 16% with evidence of hunger.² Nelson et al.³ found high rates of food insecurity among a sample of adult patients at an urban county hospital, with nearly one fourth reporting hunger. We also found a high prevalence of food insecurity and hunger among families attending the pediatric primary care clinic at our institution.⁴

Given their heightened socioeconomic vulnerability,^{5–7} low-income legal immigrants may be at significant risk for hunger. The well-being of this population may be further compromised by the Personal Responsibility and Work Opportunity Reconciliation Act of 1996, commonly known as welfare reform, which denied food stamps, Medicaid, Temporary Assistance to Needy Families, and Supplemental Security Income to most legal immigrants, solely on the basis of their immigration status and date of entry into the United States. These restrictions for legal immigrants were expected to account for \$23 billion—almost half of the federal savings that welfare reform was expected to generate⁸—even though noncitizens constituted only 12% of the population with incomes below poverty.⁹ The purpose of this study, sponsored by Physicians for Human Rights (Boston, Mass), was to determine the prevalence of food insecurity and hunger and sociodemographic characteristics associated with hunger in a sample of low-income legal immigrants in the United States.

Methods

Site Selection and Participants

Structured interviews were administered during the last 2 weeks of March 1998 to a convenience sample of Latino, Vietnamese, and Cambodian self-identified legal immigrants attending primary care clinics or community multiservice centers or living in im-

migrant communities in Los Angeles and Salinas, Calif; Houston, Tex; and Chicago, Ill. These states were chosen because of their large legal immigrant populations and geographic diversity. Refugees, asylees, and undocumented immigrants were excluded.

Questionnaires were translated into Spanish and Vietnamese by certified translators, and interviews were conducted in the subjects' native language by clinic and service agency personnel. Each site obtained institutional review board approval through its individual institution.

Survey Instrument

The questionnaire included the entire 18-item USDA Food Security Scale² (Table 1). A federal working group consisting of the USDA Food and Nutrition Service, the National Center for Health Statistics, the Centers for Disease Control and Prevention, and experts in academia and the private sector created this scale. *Food insecurity* is defined as the "limited or uncertain availability of nutritionally adequate or safe foods or the uncertain ability to acquire acceptable foods in socially acceptable ways." *Hunger* is defined as the "uneasy or painful sensation caused by a lack of food, a recurrent and involuntary lack of access to food, which may produce malnutrition over time. Hunger is a potential, although not necessary, consequence of food insecurity."

This scale aims to measure only hunger resulting from the inability to afford enough food. It does not measure hunger that results from being too busy to eat, from voluntary fasting, from illness, or from any other cause. The instrument captures hunger on a household,

Jennifer Kasper is with the Division of General Academic Pediatrics, Boston Medical Center, Boston, Mass. Sundeep K. Gupta is with the Natividad Medical Center, Salinas, Calif. Phuong Tran is with the University of Chicago Pritzker School of Medicine and Louis A. Weiss Memorial Hospital, Chicago, Ill. John T. Cook is with Boston Medical Center, Boston, Mass. Alan F. Meyers is with Boston University School of Medicine/Boston Medical Center, Boston, Mass.

Requests for reprints should be sent to Jennifer Kasper, MD, MPH, Boston Medical Center, Department of Pediatrics, Division of General Academic Pediatrics, 91 E Concord St, Maternity Bldg, Room 4122, Boston, MA 02118 (e-mail: jennifer.kasper@bmc.org).

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TABLE 1—Food Security Status Categories and Associated Questions From USDA Food Security Scale

Food Security Status With Definition	Types of Questions Answered Affirmatively	Score From 18-Question USDA Food Security Scale
Food secure ^a	None Worried food would run out Food bought did not last	0–2 affirmative responses
Food insecure without hunger ^b	Adult not eating balanced meals Child fed few low-cost foods Adult cut size or skipped meals Could not feed child balanced meals Adult eating less than felt he or she should	3–7 affirmative responses
Food insecure with moderate hunger ^c	Adult cut size or skipped meals in 3 or more months in past 12 months Child not eating enough Adult hungry but did not eat Respondent lost weight Cut size of child's meals	8–12 affirmative responses
Food insecure with severe hunger ^d	Adult did not eat for whole day Child hungry Adult did not eat for whole day in 3 or more months in past 12 months Child skipped meal Child skipped meal in 3 or more months in past 12 months Child did not eat for whole day	13–18 affirmative responses

Note. USDA = US Department of Agriculture.

Source. Adapted from Hamilton et al.²

^aLittle or no evidence of food insecurity.

^bHousehold has concerns about and makes adjustments to its food management, including a reduced quality of diets, but little or no reduction in the household members' food intake is reported.

^cAdults' food intake has been reduced to an extent that it implies that the adults have repeatedly experienced the physical sensation of hunger.

^dChildren's food intake has been reduced to an extent that it implies that the children have repeatedly experienced the physical sensation of hunger; in the case of households without children, it implies that the adults have made even more severe cuts in their diets.

rather than an individual, level. The USDA scale classifies households into 1 of 4 food security status categories, as illustrated in Table 1. The reproducibility and validity of this questionnaire have been described elsewhere.^{10,11}

Data Analysis

Chi-square and logistic regression analyses were used to examine the association between hunger and selected sociodemographic variables. Stepwise logistic regression was performed with hunger as the dependent variable and the following independent variables: ethnicity, income, English-speaking ability, years in the United States, households with children, receipt of food stamps, receipt of Medicaid, and receipt of Special Supplemental Nutrition Program for Women, Infants, and Children benefits.

Results

Of the total 1050 individuals approached, 672 (64%) were eligible and agreed to participate. Based on the USDA "Guide to Implementing the Core Food Security Module,"¹² 630 questionnaires (94%) met the criteria for scoring. Sociodemographics of the resulting sample are shown in Table 2.

Only 20% of the households were classified as food secure; 40% were food inse-

cure without hunger, and 41% were food insecure with hunger (27% moderate hunger and 14% severe hunger) (Figure 1). Thirty-three percent of the respondents reported that they or other adults in the household skipped meals; 10% said that they or other adults in the household did not eat for a whole day at least once during the past 6 months; and 25% reported that they cut the size of their children's meals. Sixteen percent reported that their children were hungry, 12% reported that their children had to skip meals, and 8% reported that their children had not eaten for a whole day because of insufficient money for food.

The dichotomous variable "no hunger/hunger" was defined by combining the 2 categories of food insecurity with hunger (moderate or severe) into 1 category. Households were more likely to be hungry if their income was less than the federal poverty level, if respondents had poor English-speaking ability, or if children lived in the household (Table 3).

Of the families with children, receipt of public assistance (i.e., federal and state food stamps, Medicaid, Supplemental Security Income, Temporary Assistance to Needy Families, and Special Supplemental Nutrition Program for Women, Infants, and Children) by respondents, their spouses, and children was very low (Table 2). Overall, 40% of the families were not participating in any public assis-

tance programs, and 67% of the families were receiving 2 or fewer benefits.

Examination of the relation between participation in public assistance programs and hunger showed that families were more likely to be hungry if they had at least 1 member who received food stamps, Medicaid, at least 1 public benefit of any kind, or Special Supplemental Nutrition Program for Women, Infants, and Children assistance in eligible households (Table 3).

Logistic regression analysis confirmed the independent contribution of income below the federal poverty level (odds ratio [OR]=2.72; 95% confidence interval [CI]=1.72, 4.30), receipt of food stamps (OR=2.53; 95% CI=1.57, 4.09), Latino ethnicity (OR=2.39; 95% CI=1.49, 3.82), and poor English (OR=1.76; 95% CI=1.10, 2.82) to hunger (Table 3).

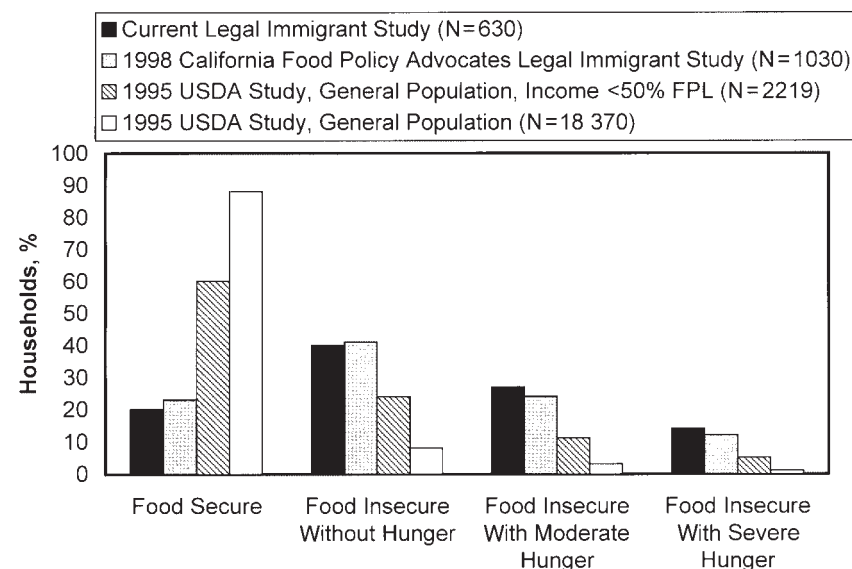
Discussion

Hunger was very prevalent among the legal immigrants we surveyed, and the rate of hunger, at 41%, was more than double the rate found recently in the general population of low-income families.² However, despite the apparent lack of money to buy food, respondents reported relatively low participation in public assistance programs, even though most were eligible on the basis of their time of entry into

TABLE 2—Demographics of Study Sample^a: Los Angeles and Salinas, Calif; Houston, Tex; and Chicago, Ill, 1998

	Respondents, No. (%)
Ethnicity	
Latino	337 (53)
Asian	293 (47)
Country of origin (n=620)	
Mexico	283 (46)
Vietnam	225 (36)
Cambodia	68 (11)
Other	54 (9)
Employment (n=598)	
Employed	230 (38)
Unemployed	232 (39)
Disabled	127 (21)
Income (n=538)	
<50% of federal poverty level	151 (28)
51%–100% of federal poverty level	240 (45)
>100% of federal poverty level	147 (27)
Households with at least 1 child < 19 y	377 (60)
Households with at least 1 US citizen child < 19 y	270 (43)
No. of years in United States (n=618)	
≤10	372 (60)
>10	246 (40)
English-speaking ability (n=620)	
Excellent/good	139 (22)
Poor/none	481 (78)
Households not receiving public benefits	
No food stamp recipients	466 (74)
No Medicaid recipients	384 (61)
No Supplemental Security Income recipients	482 (77)
No Temporary Assistance to Needy Families recipients	586 (93)
No Special Supplemental Nutrition Program for Women, Infants, and Children recipients	486 (77)
Health status of respondent (n=602)	
Excellent/very good/good	278 (46)
Fair/poor	324 (54)
Reported health status of the children < 19 y (n=877)	
Excellent/very good/good	687 (78)
Fair/poor	190 (22)

^aValues are based on n=630 unless otherwise indicated.



Note. USDA=US Department of Agriculture; FPL=federal poverty level.

FIGURE 1—Comparison of prevalences of food security categories.

the United States and their level of income. Together, these results highlight an apparent gap between nutritional need and received services among legal immigrants. This finding represents a challenge to the development of effective and humane public policies in the United States as well as to clinicians who must confront the health consequences of such unaddressed need in the course of daily practice.

An unexpectedly high number of both adults and children in this study had to cut the size of their meals, skip meals, and not eat for a whole day because of lack of resources. These self-reported measures of hunger are associated with significantly lower intakes of energy and micronutrients, including calcium, iron, and protein.¹³ Thus, most of the households in our study are probably lacking food of sufficient quantity and quality for optimal growth, function, and health.

The relation has been shown between hunger and susceptibility to disease⁴; adverse medical outcomes for people with chronic illness³; and abnormal growth patterns,¹⁵ anxiety and aggression,¹⁶ poor academic performance, and need for special educational services¹⁷ among children. Adequate caloric and micronutrient intakes are critical to improve the health of members of our communities.

This study had several limitations. The USDA Food Security Scale is based on self-report. Selection bias is possible, given the sampling technique used. We could not independently confirm the immigration status of those surveyed and those excluded from the study, so some misclassification may have occurred. Nevertheless, given the type and number of participating facilities, drawn from 3 states, it seems likely that these facilities represent a broad sample of sites from which low-income immigrants in urban settings are likely to seek services. Furthermore, the striking similarity of our data to those reported by the California Food Policy Advocates¹⁸ in their study of legal immigrants in California, which used a different sampling methodology, argues strongly for their validity.

Prior studies have documented that the receipt of food stamps is associated with the purchase of a greater quantity and quality of food¹⁹ and with higher proportions of low-income children meeting the recommended daily allowance of selected vitamins and minerals.²⁰ In this study, receipt of food stamps (by at least 1 member of the household) was positively associated with hunger. This finding was also demonstrated in the National Health and Nutrition Examination Survey III²¹ and has been ascribed to the program's successfully targeting the most needy individuals and families. Furthermore, 2 recent studies^{3,18} have reported that reduction or elimination of food stamps is associated with increased hunger. The study by the California Food Policy Advocates showed this effect among legal immigrants.

TABLE 3—Relative Risk (From Bivariate Analysis) and Adjusted Odds Ratios (From Multivariate Analysis) of Independent Predictors of Hunger

Outcomes	Prevalence of Hunger, % (No.)	Crude Relative Risk (95% CI)	Adjusted OR (95% CI)
Income \leq 100% of federal poverty level	47 (185/391)	1.31 (1.18, 1.44)	2.72 (1.72, 4.30)
Receipt of food stamps ^a	52 (86/164)	1.19 (1.07, 1.32)	2.53 (1.57, 4.09)
Latino ethnicity	45 (152/337)	1.25 (1.03, 1.51)	2.39 (1.49, 3.82)
Poor English-speaking ability	43 (208/481)	1.52 (1.10, 2.10)	1.76 (1.10, 2.82)
Households with children	45 (170/377)	1.31 (1.07, 1.61)	1.46 (0.94, 2.27)
Receipt of Medicaid ^a	48 (119/246)	1.23 (1.07, 1.41)	NS
Receipt of WIC ^a	52 (56/107)	1.30 (0.96, 1.78)	NS
\leq 10 y in United States	38 (143/372)	1.10 (0.96, 1.25)	NS

Note. CI = confidence interval; OR = odds ratio; NS = addition of this variable made no significant improvement in the model; WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

^aHouseholds with at least 1 member who is participating in the program.

Although our study was not designed to assess the effect of reduced availability of the Food Stamp Program on legal immigrants, the findings underscore the potential importance of this policy change. Even with the recent partial restoration of food stamps for some legal immigrants (namely, those younger than 18 years or older than 65 years who arrived before August 22, 1996), most legal immigrants in the United States continue to be excluded. The high prevalence of hunger found in this study suggests that all low-income legal immigrants could benefit from the receipt of food stamps.

The Food Stamp Program is the nation's most important nutrition program. It represents, in the words of the USDA, "the pledge that hunger will not be tolerated in America. It is the tangible expression of the principle that everyone has a right to food for themselves and their families."²² These words echo the rights enumerated in article 25(1) of the Universal Declaration of Human Rights, which was adopted by the United Nations 50 years ago, namely, "the right to a standard of living adequate for himself and his family, including food, clothing, housing and medical care and necessary social services."²³ Physicians for Human Rights believes that food security and freedom from hunger are basic human rights that are essential for the enjoyment of all other rights.

Conclusions

The prevalence of hunger among low-income legal immigrants is unacceptably high. Therefore, clinicians, public health workers, and immigrant advocacy groups should consider the following steps: (1) screen similar populations for food insecurity and hunger; (2) ensure that all eligible immigrants receive food stamps to help maximize household food availability; and (3) refer families with emergency food needs to appropriate community resources. We can also serve our patients' inter-

ests by informing policymakers about the high prevalence of hunger and its adverse health consequences among low-income immigrant groups in the United States. The fractious political processes that shape current immigrant policy must be informed by the daily suffering evidenced by the findings of this study. □

Contributors

J. Kasper was principal investigator and was involved in all aspects of the study. S. K. Gupta assisted in data collection and reviewed several drafts of the paper. P. Tran assisted in data collection. J. T. Cook was instrumental in the data analysis and reviewed several drafts of the paper. A. F. Meyers was involved in all aspects of the study.

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